

Louisville Sustainability Advisory Board

Agenda

Wednesday, September 20th, 2017
City Hall, 749 Main Street, Spruce Room
6:30 - 8:00pm

Chair: Allison Johanson

Secretary: Jamie Bartlett

6:30-6:45pm:

- I. Call to Order
 - a. Roll Call
 - b. Approval of Current Meeting's Agenda
 - c. Approval of August 16, 2017 Meeting Minutes
 - d. Public Comments on Items Not on the Agenda
 - e. Jay's Minute
 - f. Dave's Minute
 - g. Erica's minute

6:45-7:55pm:

- II. Lea Yancey Boulder County Update
- III. SAP Matrix Update
- IV. LSAB To Do List/Priorities
- V. LSAB Budget Discussion
- VI. City Board Applicants Application Review
- VII. Partners In Energy (PiE) Update
- VIII. Louisville Board and Commission Update

7:55 - 8:00 pm:

- IX. Log volunteer hours
- X. Items for discussion at our next meeting
- XI. Adjourn

Meeting Packet Contents:

Questions for Board and Commission Applicants Memorandum
Partners In Energy Residential and/or Business Update (TBD)

Louisville Sustainability Advisory Board

Wednesday, August 16th, 2017
City Hall, 749 Main Street, Spruce Room
6:30- 8:00pm

Chair: Allison Johanson

Secretary: Jamie Bartlett

6:30-7:22pm:

- I. Call to Order at 6:31 pm.
 - a. Roll Call (Members present in bold): Mary Ann Heaney, Mark Persichetti; **Justine Vigil-Tapia; Jamie Bartlett;** Marianne Martin, **Allison Johanson, Dan Delahunty,** City-Staff Liaison **Dave Szabados;** City Sustainability Specialist - **Erika Archer,** City-Council Liaison **Jay Keany.**
 - b. Approval of Current Meeting's Agenda - approved
 - c. Approval of July, 2017 Meeting Minutes - approved
 - d. Public Comments on Items Not on the Agenda
 - e. Jay's Minute – Nothing to update, but there was a short discussion on the water treatment cost/fee schedule adjustment
 - f. Dave's Minute – Installing new security system library. Not much on Rec Center, there seems to be a loss of some sustainability initiatives as the project goes over budget.
 - g. Erika's Minute –
 - Community newsletter coming out in September, focused on sustainability.
 - She's been communicating with Energy Smart they are providing with baseline numbers for Louisville 2015-2016. They increased their users 25% and looks about 12 increase for this year (small numbers).
 - PiE update – School Box kits are going out. Mostly 5th graders. Working with building owners association of the CTC.
 - Sustainability Lecture Series
 - i. 18SEP Energy and Costs
 - ii. 25OCT – Transportation
 - iii. 29NOV – Water
 - Met with Lafayette Sustainability Coordinator, they will be doing a solar workshop which Louisville can partner with.
 - Green Business Recognition flyers and postings going out.
 - Planning a workshop for City employees on waste.
 - Will see SAP Matrix September.
- II. KPI Priorities.
 - a. There is a budget with sustainability items, it's in the City Manager's officer
 - b. We have the ability to ask for these funds, will address this in next meeting.
- III. Bee Update

- a. Agree to let Mary Ann move it forward on her own. Things to address: Epipen questions, And the once a year swarm. We recommend submitting proposal to council before our meeting to expedite the process.

IV. Boards and Commissions

- a. Allison – Parks: they're planning to redo Heritage Park and some other landscaping. She sent them info to get in touch with LSAB and a link to LSAB priorities.
- b. Jamie – Planning: They are looking at subdivision codes. IT will be back on agenda in September. Basically, it's not clear what's the best sustainability strategy here.
- c. Justine – BRAD: looking at business strategies, transportation (multimodal) will become a bigger issue to increase access with businesses. BRAD might also get involved with Noise Ordinance.

V. Log volunteer hours - done (see table below)

VI. Items for discussion at our next meeting:

- Lea from County
- SAP Matrix
- LSAB Priorities/To-Do
- LSAB Budget
- PiE
- Boards

VII. Adjourned at 7:38 pm

LSAB 2017 Schedule, Deadlines, Meeting Assignments

If you are unable to fulfill your assignment, you are responsible for finding a replacement!

Secretary to email agenda, AND previous month's minutes to Kerry Holle kerryh@louisvilleco.gov	Meeting Date	Chair	Secretary
January 8	January 18	Mary Ann	Allison Marianne
February 8	February 15	Mark	Mark
March 6	March 15	Justine	Jamie
April 10	April 19	Jamie	Justine
May 8	May 17	Allison	Dan
June 12	June 21	Dan	Allison Mary Ann
July 10	July 19	Allison	Mary Ann
August 07	August 16	Allison	Mark Jamie
September 11	September 20	Allison	Jamie
October 09	October 18	Allison	Justine
November 6	November 15	Allison	Dan
December 11	December 20	Allison	Marianne

*A crossed out name followed by a second name denotes a substitute.

Members Hours Summary: June 2017

Board Member	Activities	Hours
Allison Johanson	Meeting attendance,	1.5
Dan Delahunty	Meeting attendance,	1.5
Jamie Bartlett	Meeting attendance, Board Review	2.5
Justine Vigil-Tapia	Meeting attendance	1.5
Marianne Martin	Meeting attendance,	--
Mark Persichetti	Meeting attendance,	4
Mary Ann Heaney	Meeting attendance,	--
	Total Hours	11



Residential Strategy Call Notes

August 8, 2017

12:30 – 1:00 AM

Participants

- Erika Archer
- RJ Harrington
- Ghita Carroll
- Mark Persichetti
- Dave Hatchimonji
- Ellie Troxell

Agenda

Topic

Community Updates

Strategy Activities

Action Items & Next Steps

Discussion Summary

- Community Updates
 - Green Business Program officially launched!
 - Community solar possibilities in Louisville
 - Renters and homeowners can subscribe to community solar
 - No subscriptions remaining for any projects
 - Boulder County is boundary
 - Louisville Middle School EV charging station installed
 - Search underway for Louisville City Manager
 - Two focus groups to be held over next couple of weeks
 - Residents are advocating to include sustainability as criteria in interview and selection process
 - Grid Alternatives
 - Community solar garden company
 - Provide solar by subscription to municipalities and people 80% AMI or under
 - Under contract with Boulder County with available for other government in County to participate
 - Benefits for Louisville
 - Avoid other sole procurement progress
 - Anticipate capacity
- Strategy Activities
 - Residential flyer translation



- Xcel Energy does not have anyone in-house to translate
 - Cost not included in implementation budget to work with outside translation company
 - Very few websites or other resources that directing residents to are available in Spanish
 - **Question:** Does the City or EnergySmart have resources available to translate?
 - City and EnergySmart do not have capacity
- Community workshop at Louisville Library
 - Topic - residential energy rebates
 - Outcome of community survey
 - Date - Monday, September 18th @ 6:30 pm
 - Working on getting an Xcel Energy residential program representative to attend
 - Erika plans to facilitate
 - EnergySmart can speak (likely Dave)
- **Question:** How does EnergySmart engage larger multifamily properties?
 - Depending on how metered might qualify for commercial rebates
 - Used as a way to classify whether or not multifamily by utilities typically
 - EnergySmart could provide a custom rebate for larger building
 - Would talk with landlord to figure out best option
- **Question:** Is Louisville considering tag teaming with Lafayette's solar workshop? And vice versa with community workshop?
 - Yes, Louisville is partnering on solar workshop on September 16th
 - Plan to invite Lafayette residents to community workshop
- Priority areas
 - Moving forward w/ multifaceted approach
 - Working with the planning dept. to identify low/medium income areas in Louisville (queries to pare assessor's data, identified older housing not slated for development, seniors via Louisville recreation and senior center, mobile homes and HOAs)
 - No income data available by City via housing survey
 - Goal: compile a list of specific residences and multifamily to target outreach
 - Blanket outreach efforts into hot spot locations
 - Aim for 80% AMI and lower
- Action Items & Next Steps
 - Adapt residential flyer content for School Education Kits and plan next steps pending check in with AM Conservation
 - Send updated School Education Kit to Erika when complete (Ellie)
 - Send photo to highlight EV charging station once project is finalized and potential tree carving (RJ/ Ellie/ Ghita)
 - Send City queries to support identifying priority areas (Ellie)

Memorandum

To: Sustainability Advisory Board
From: Meredyth Muth, City Clerk
MeredythM@LouisvilleCO.gov/303.335.4536
Date: August 21, 2017
Re: Questions for Board and Commission Applicants

Starting this year, board and commission applicants will be asked to complete an application that includes questions specific to the duties of the board to which they are applying. Below are some suggested questions for applicants to the SAB.

We would like your feedback on these questions and any suggestions you have for other questions or other wording. The final application will include 2-4 questions that will be approved by the City Council.

Please contact me if you have any questions or suggestions about the new process. Thanks for taking the time and giving your input.

Questions for consideration:

- *If appointed, what would you like to accomplish on the Sustainability Board while you're involved?*
- *What does sustainability mean to you?*
- *In your opinion, what should be the top three priorities for the Sustainability Board?*
- *Discuss how costs and benefits should be considered when making sustainability recommendations and decisions.*
- *Please tell us about a time when you were working in a small group in which you disagreed with the direction that the group was taking and how you handled that situation.*
- *What professional qualifications, skill sets and relevant experiences do you have for this position (such as educational degrees, specialized training, service on governing or decision-making boards, etc.)?*

DRAFT

2-Year Work Plan for the Louisville Sustainability Action Plan

Credits & Dates

Forthcoming

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Overview

In November 2016, the Louisville City Council approved the first-ever Louisville Sustainability Action Plan (SAP), developed by the Louisville Sustainability Advisory Board (LSAB). The SAP is divided into five sustainability categories: Climate & Energy, Water, Transportation, Waste, and Local Food and Agriculture. The SAP expresses the desires of the City to make progress toward sustainability, both internally in the operations of the City facilities, and externally through the actions of the Louisville residential and business community. Intended as a supplement to the SAP, this 2-Year Work Plan sets specific, time-bound outcome goals for departments to implement the strategies in the SAP for a stronger economy and a cleaner environment.

Goals & Objectives

The goal of this 2-Year Work Plan is to provide an assessment of progress made from the SAP and to recommend steps that may reasonably be performed within 24 months that will allow the SAP strategies to be SM. Information is provided primarily in list and chart format for ease of readability. Further research and notes have been provided to the LSAB containing more of the background and rationale behind the recommendations offered in this plan, as well as additional recommendations regarding the strategies themselves.

In order to meet the strategies set forth in the SAP, multiple considerations went into the recommendations.

- 1) **Multiple benefits.** It is the City's desire to provide solutions that address multiple sectors and factors (municipal, residential, business, health, infrastructure, economic, natural resources, etc.).
- 2) **Collaborative approach.** Develop and prioritize solutions through an inclusive process that involves input and commitment from staff, governmental, and local resources.
- 3) **Social equity.** Provide solutions that are inclusive, considering vulnerable populations.
- 4) **Environmental benefit.** Integrate approaches that work in harmony with natural systems and that are environmentally and fiscally sustainable.
- 5) **Technical soundness.** Identify solutions that reflect best practices and that have been tested and proven to work in similar context in neighboring or similar communities.
- 6) **Harmonize with existing activity.** Expand, enhance, or leverage previous and current local and regional planning efforts.

- 7) **Long-term and lasting impact.** Create long-term gains for the community with solutions that are replicable, sustainable, and long-lasting.

The purpose and scope of this 2-Year Work Plan is to create a plan for the City of Louisville to provide specific guidance to meet the strategies in the SAP over the next two years.

Definitions

A **target** refers to a conceptual goal, as outlined in the 2016 Sustainability Action Plan.

A **strategy** refers to a plan or direction that the City could take to partially or fully achieve the target, as outlined in the 2016 Sustainability Action Plan.

A **recommendation** refers to a specific action that could be taken in order to meet the strategy given in the 2016 Sustainability Action Plan.

Method

To create this 2-Year Work Plan, the following method and framework was applied:

1) **Input.** Sustainability Input Interviews were conducted with relevant department heads, as well as with select stakeholders within departments, in order to capture sustainability input regarding the 57 strategies outlined in the SAP. These interviews not only provided critical information regarding the ability to complete these projects and resources required, but it also made the process of determining projects an inclusive one, helping to ensure collaboration and greater success to meet the strategies. In all, the 2-Year Work Plan represents input from more than 22 staff stakeholders across all departments in the City, as well as from City Council and the Louisville Sustainability Advisory Board.

2) **Research.** Using the input and direction provided, existing programs and projects in the City of Louisville were further researched across departments. Neighboring communities were interviewed as well in order to gain insight regarding technical soundness, best practices, and lessons learned.

3) **Synthesis.** Findings from both the research and input were synthesized and processed into a list of recommendations, with the goal to fulfill the strategies outlined in the SAP.

4) **Prioritization.** To prioritize the recommendations, each was measured by the following factors: stakeholders, time required to implement the strategy, funding expectations, and importance relative to Greenhouse Gas Emissions. The following weights were assigned and applied in order to give a final prioritization score on a scale of 0 (low) – 12 (high):

Funding

Scale: 1 (least availability of funding) through 5 (highest availability of funding)

- 1 = Requires additional budget
- +3 = Likely to find all or partial funds (i.e. through grants)
- 5 = Within current budget

A strategy may receive up to 5 points for Funding.

Estimated Timeframe for Completion

Scale: 1 (longest amount of time) through 4 (shortest amount of time) / Ongoing = +1

- 1 = 24 months+
- 2 = <24 months
- 3 = <18 months
- 4 = <6 months
- +1 = Ongoing

A strategy may receive up to 5 points for Timeframe.

Environmental Importance relative to effect on Greenhouse Gas (GHG) Emissions

This is a multiplier to give a strategy extra prioritization based on the importance factor of whether or not it will affect GHG emissions.

- 1.0 = Does not improve GHG emissions
- 1.1 = Improves GHG emissions with significant effort
- 1.2 = Improves GHG emissions with low effort

Prioritization Score

The total prioritization score is determined by the following formula:

$$(\text{Funding Score} + \text{Timeframe Score}) \times \text{Environmental Importance Factor} = \text{Prioritization Score}$$

This framework method was presented to the Interim City Manager, the Assistant to the City Manager, and the Louisville Sustainability Advisory Board and approved in advance of its application to the recommendations.

It should be noted that this framework should not be considered the final prioritization designator, as there may be strategies which receive a lower prioritization score than stakeholders desire, but remain a priority. In these cases, stakeholders have flexibility to add/delete priorities based on other factors. This framework should only be used as a tool to help in the prioritization of projects into this 2-Year Work Plan.

It is also important to note that prioritization refers to how easily (funding resources) and quickly (near or long-term) a recommendation may be accomplished, rather than to the importance of the recommendation itself.

The framework matrix was populated with the data based on research and input received from the stakeholders of these strategies, and prioritization scores were tallied.

5) Prioritized Recommendations. Recommended Action Items were assembled. This summary prioritizes recommendations in order of timeframe, funding and environmental impact, and is provided with the detailed scoring in the section called List of Action Recommendations by Priority.

The following section show an assessment of progress made, and the recommended action items in order of priority.

Detailed Progress and Recommendations

The following chart shows the analysis of the 57 different 2016 Sustainability Action Plan Strategies determined by the Louisville Sustainability Advisory Board and approved by the City Council in November 2016.

Considerable progress has been made to date since the publication of the SAP:

- 25% of the strategies are Substantially Complete
- 60% of the strategies are PM
- 14% of the strategies are NM

The analysis below summarizes progress made, input from stakeholders, as well as recommended action items that could be reasonably completed within a 2-year timeframe.

Note that the strategies appear as they appeared in the 2016 Sustainability Action Plan approved by Council in 2016. Recommendations for edits to the strategies directly will be provided to the LSAB for consideration in a future revision of the Louisville Sustainability Action Plan.

SM = Substantially Met
 PM = Partially Met
 NM = Not Met

Climate & Energy				
#	Strategy	Progress	Notes	Recommended Action(s)
	Internal Target 1: Move towards carbon neutrality for all City operations			
1	CE-IT1S1: Update inventory of greenhouse gas (GHG) production	PM	Boulder County has procured a third-party consulting firm to update the Greenhouse Gas (GHG) Inventory for the entire county, by municipality. This study has begun and the City of Louisville has provided all requested information to complete this study to the consulting firm. GHG inventory completion: October 2017.	<ul style="list-style-type: none"> Complete 2016 Greenhouse Gas (GHG) inventory: The City Manager’s Office should continue to work with Boulder County, with Public Works’ input, until complete.

				<ul style="list-style-type: none"> Perform a community-wide GHG inventory annually.
2	CE-IT1S2: Set new goals for GHG reductions	PM	<p>In the 2017 Louisville Energy Action Plan, the City made a goal to reduce total community-wide energy use by 1% annually, which could result in an 11% reduction over the 2015 baseline by 2027. In addition, Louisville's City Council advanced its commitment to a healthy and sustainable community by voting to adopt Resolution 34-2017 in support of the Paris Climate Agreement.</p> <p>While the above actions both support a goal to reduce Greenhouse Gas emissions and further the goal to reduce energy usage through energy efficiency (EE) and renewable energy (RE) in the Energy sector, they do not specifically define community-wide near- or long-term GHG emissions reduction targets for the City, taking into account Transportation, Water, Waste, or Local Food and Agriculture. An example of a strong target goal would be: Reduce community-wide GHG emissions by 5% by 2022 (5 yrs), and by 26% by 2037 (20 years). A strong target goal can likely be met with the natural progression of technology, continued support from staff and council through purchasing decisions and actions made in favor of EE and RE, and with support from a variety of partners (Boulder County EnergySmart, Partners for a Clean Environment (PACE), Xcel Energy, etc.) under the existing Louisville Energy Stars brand. All departments have been queried as to successful actions that have been taken and that may be taken. The likelihood of successful residential and business participation will need to be weighed into these goals. City Council's input and approval is critical. While there is no penalty for failure to meet the goals set forward, the goals themselves advance and inform outreach and initiatives.</p>	<ul style="list-style-type: none"> Determine community-wide near- and long-term GHG emissions reduction targets, to be approved by City Council.
3	CE-IT1S3: Purchase lowest fuel-use vehicles practical for the City fleet.	PM	<p>The City purchased a Nissan Leaf in 2016.</p> <p>Additional electric vehicles similar in function to the Nissan Leaf (~\$30,000) will likely exceed the current budget for most replacement vehicles in up-front purchase cost. Partial grant funding is likely available to address this gap. Current grant opportunities through RAQC, for example, will fund 80% up to the following set maximums:</p> <ul style="list-style-type: none"> Electric Vehicle: the incremental cost differential between an EV and the comparable gasoline vehicle up to \$8,260 	<ul style="list-style-type: none"> Determine with the Police Department whether they would like to purchase an electric vehicle/EVSE in 2018. If yes, then a grant application should be made in Q1 2018. Perform analysis on vehicle replacements on a case-by-case

			<ul style="list-style-type: none"> • Level 2, Single Port Station: \$3,260 • Level 2, Dual Port Station: \$6,260 • Level 3, Single Connection Standard Station: \$13,000 • Level 3, Multiple Connection Standard Station: \$16,000 <p>Most likely immediate project need: The Police Department has identified one vehicle (non-patrol) that will be up for replacement in 2018 and would like to look into the possibility of purchasing an electric vehicle, as well as a potential EV station for the department. Based on current offerings through RAQC, it is likely that there will be an appropriate grant to provide partial funding at the appropriate time. In addition, vehicles are being designed which would be appropriate for patrol fleet in which the department chief has expressed interest, for example the 2019 Ford Police Responder Hybrid Sedan.</p>	<p>basis, with a preference toward electric and lower emission vehicles, as appropriate for use.</p>
4	CE-IT1S4: Develop conversion plan for City vehicle fleet to implement new vehicle technologies as they become available for testing and use.	PM	<p>Public Works and the City Manager's Office have performed an analysis of what it would cost to replace current fleet vehicles and have informally agreed on the following assumptions: 1) It is generally desired that standard fleet vehicles should be upgraded to electric, hybrid, and alternative fuel vehicles over time, as appropriate, 2) It is not cost effective to make fleet replacements without an immediate need, 3) Not all vehicles would fulfill their function requirements as electric or alternative vehicles with the current technology available, and 4) technology and cost of alternative fuel vehicles is expected to improve over the next few years. Therefore, analysis should be performed on a case-by-case basis as vehicles need to be replaced to determine cost-effectiveness and appropriateness of use, as well as technology advances and funding opportunities, with a strong leaning toward electric, hybrid, and alternative fuel vehicles where possible. This plan has been generally agreed on verbally, but could be drafted as policy to be added into an existing purchasing policy.</p>	<ul style="list-style-type: none"> • Formalize conversion plan for City vehicles with new technologies. The City Manager's Office should work in tandem with Public Works to meet this objective, with input from other affected departments, as necessary.
5	CE-IT1S5: Implement controls and policies to limit idling of City vehicles.	NM	<p>Based on department interview feedback, any adopted policy to limit idling of City vehicles would need to consider the situation (e.g. in extreme heat or cold, should car should be left idling for comfort?). Even so, it is generally agreed by interviewees that more could be done by staff drivers.</p> <p>It should be noted that some actions have been taken by the city to reduce community-wide idling:</p>	<ul style="list-style-type: none"> • Create a simple awareness campaign addressing the reduction of idling in City vehicles and determine if an official policy is appropriate. Staff may be educated about vehicle idling by both email and through general

			<ul style="list-style-type: none"> In coordination with DRCOG, the City assisted to complete corridor timing improvements to reduce vehicle delay/idling/emissions. In coordination with Superior, Louisville led the initiative to build the Diverging Diamond Interchange (DDI), which saved more delay/idling/emissions on the US 36 BRT route than the previous US 36 RTD Queue Jump project was achieving. <p>Note: Clarification is needed by what is meant by the “controls” to be implemented in this strategy.</p>	staff-wide sustainability training.
6	CE-IT1S6: Install LED traffic signals.	SM	Nearly all traffic lights in Louisville have been converted to LED.	<ul style="list-style-type: none"> None. Project is effectively complete.
Internal Target 2: Move Toward Carbon Neutrality for City Buildings				
7	CE-IT2S1: Aim for all eligible existing City buildings be benchmarked using the ENERGY STAR performance standards. For ENERGY STAR eligible buildings, a strategy and costs will be developed for energy efficiency improvements.	PM	<p>The Facilities Manager reports that an attempt has been made within the last year to benchmark City buildings using Energy Star, with mixed results. Energy Star benchmarks energy usage (i.e. energy data from Xcel can be downloaded into a portfolio over time) and compares it to other buildings in the area. If a building is in the top 25% in efficiency comparatively, then it is considered to be an Energy Star building. Challenges with the City facilities include the lack of availability of relevant templates through the Energy Star interface. For example, the library at face value seemed like it would be a good building to benchmark with Energy Star. When data was entered into the application, however, the presence of a parking garage under the building proved problematic for the assessment. Similar challenges exist with the Recreation Center, as an “Office Building” template can’t be filled out, and a Rec Center has many features that a normal office building would not have (i.e. swimming pool, showers). Challenges exist in tracking the Police Department in comparison to other similar buildings in that the courthouse is attached. It functions as two separate buildings, with different hours. The Golf Course, too, is not a standard facility with standard energy usage needs.</p> <p>Still, the Facilities Manager thinks the following buildings may be able to be measured with some creativity, as long as certain data sets are removed to even out the comparison baselines:</p> <ul style="list-style-type: none"> Library (separate parking garage data) City Hall (This was last measured through Energy Star at 60% and adjustments have been worked on.) 	<ul style="list-style-type: none"> Explore whether the Library, Police Department, and Recreation center might be usefully be measured through Energy Star. Update the Energy Star data on City Hall and any other buildings that may be quantified in this way on an annual basis. Develop strategy and costs for energy efficiency improvements for buildings on a case-by-case basis.

			<ul style="list-style-type: none"> • Rec Center (mechanism unknown) • PD (separate courthouse energy data) 	
8	CE-IT2S2: Expand solar and renewable energy purchases for City buildings	PM	<p>The City currently has 1178kW of solar capacity online to use at the City's municipal facilities, with another 1000kW purchased that is not yet functional. When that solar array comes online the end of 2018 the resulting 2.178 MW will enable the City to cover over 50% of its municipal electric demand with renewable energy.</p> <p>The City is in the beginning stages of exploring the possibility of further alternative energy purchases. Currently three possibilities are being explored and compared:</p> <ol style="list-style-type: none"> 1) Solar garden in Louisville for municipal / residential use: Early conversations with a nonprofit solar garden company would not only offer the City another opportunity to further offset its own energy load, but would also allow low income residents an opportunity to participate in solar credits at a significantly reduced monthly energy cost. The challenges are: availability of land, length of time to develop, ROI after staff time and current market conditions are considered. 2) Solar garden offsite for municipal use only: Early conversations with a for-profit company indicates that solar capacity would be available within 12 months, should the City wish to make an agreement for another agreement similar to the current Power Purchase Agreements in place. The challenge is ROI after staff time and current market conditions are considered, as well as the availability of eligible energy streams (e.g. tariffs). 3) Wind power: Considering the City has already offloaded its peak energy use to solar (soon to be up to 50%), it may be more cost effective to simply elect wind source for some or all of the remaining facility energy needs. This would allow the City to quickly transition the rest of its energy source to renewables. While it would cost a little more per watt than what the City currently pays, it may have a long-term ROI comparable to the solar agreements without utilizing and stretching staff resources. 	<ul style="list-style-type: none"> • Explore and compare opportunities to make a plan to transition the remaining 50% of municipal facilities' energy needs to renewable sources.
9	CE-IT2S3: Adopt building	PM	According to the Planning and Building department, we should first evaluate	<ul style="list-style-type: none"> • Guidelines favoring energy

	codes & policies that promote energy efficiency in new and existing buildings.		whether either of the newer code versions would provide energy efficiency benefits for new construction, and then evaluate whether we want to adopt those.	<p>efficiency should be included in the new PUD as potential “waiver criteria”.</p> <ul style="list-style-type: none"> Continue to evaluate the adoption of updated building codes to the advancement of energy efficiency in new buildings, every three years as appropriate.
10	CE-IT2S4: Aim to achieve 80% of all points within the Energy & Atmosphere section of the USGBC LEED for new City building construction.	PM	<p>The new Recreation Center is on course to earn between 60-79 points (gold standard) under the Energy & Atmosphere section of the USGBC LEED rating system. Due to cost, however, the City will not seek formal certification. It is worth noting that interviews with the Planning Department revealed that the LEED system, while popular, may not be the ideal rating system, with suggestions that the Green Globe system may be better suited to the City’s needs. For the LEED system to be aspired toward as a City policy, this will require a more thorough discussion involving the Planning Department.</p> <p>Note: The LEED system is not based on percentages, but rather on a point system. Interviews reveal that the intention with the “80%” strategy was to represent a gold standard.</p>	<ul style="list-style-type: none"> Continue to seek 60-79 points (gold standard) under the Energy & Atmosphere section of the USGBC LEED rating system (or equivalent system) for new municipal buildings, including the new Recreation Center, on a case-by-case basis, as appropriate. If seeking a LEED Gold Standard for new municipal buildings is desired as a policy, the Planning Department should make a recommendation to the City Council for potential formalization through resolution.
11	CE-IT2S5: Perform energy audits of City facilities.	SM	<p>The Facilities Manager has been regularly tracking the BTUs/ft2 for the past few years (since 2014) and has been making significant energy improvements as a result.</p> <p>Additionally, the Facilities Manager worked with Xcel in Fall 2016 to perform energy audits on City facilities with mixed results. He reports that they were not as thorough or as accurate as he had hoped they would be. Going forward, Xcel is currently offering thorough building audits for \$7500/\$2500.</p>	<ul style="list-style-type: none"> Continue to quantify energy usage data annually by BTU/ft2, performing regular audits of municipal facilities.
External Target 1: Increase energy efficiency and renewable energy in commercial and residential sectors				

12	CE-ET1S1: Promote and use available EnergySmart efficiency services for residents.	PM	<p>As a Boulder County program, EnergySmart offers energy efficiency and renewable energy services and funding to residents and businesses to improve their bottom line.</p> <p>As a municipality, the City of Louisville is not eligible to “use” EnergySmart services. Rather, the City acts as an outreach vehicle for EnergySmart services. Current EnergySmart offerings include energy audits, solar rebates, energy efficiency discounts and low interest energy loans.</p> <p>The City of Louisville has recently stepped up its promotion of EnergySmart efficiency services via the City website and other channels as appropriate, including a September water bill insert and a school kit insert scheduled for fall 2017. EnergySmart is an active partner to Louisville in Xcel Energy’s Partners in Energy program and is additionally promoted by the City under the Louisville Energy Stars logo. Partners for a Clean Environment (PACE) also actively promotes EnergySmart through its Louisville business outreach, in coordination with the City. Data from the County regarding the number of Louisville residents served by EnergySmart is included in the Appendix.</p> <p>The Planning Department has expressed a desire to be better equipped to perform outreach for EnergySmart services.</p>	<ul style="list-style-type: none"> Continue to work closely with Boulder County Sustainability office to promote available EnergySmart efficiency services to Louisville’s residents and businesses through both the City Manager’s Office and Planning and Building. Host a community outreach session to address energy rebates available to Louisville residents.
13	CE-ET1S2: Promote and use Partners for a Clean Environment (PACE) sustainability services for businesses, and collaborate on a green business recognition program.	SM	<p>Over the last year, the City has promoted Partners for a Clean Environment (PACE) services via its website and through its Green Business Recognition program, in which PACE plays a key role. Affiliated with Boulder County, PACE is also an active partner to Louisville through Xcel Energy’s Partners in Energy program. PACE also works through other organizations, such as with Western Disposal, the CTC Building Owner’s Association, and the Louisville Chamber of Commerce to reach Louisville businesses.</p> <p>The City strongly encourages and promotes PACE for its business outreach services, which includes “free expert advisor services, incentives and a certification program to help businesses measure and gain recognition for their successful progress in energy, waste, water and transportation. PACE Partners are businesses committed to supporting a strong economy, implementing environmentally sustainable practices and becoming leaders in our community.” It should be noted that PACE also actively promotes Boulder</p>	<ul style="list-style-type: none"> Continue to promote Partners for a Clean Environment (PACE) to help businesses reduce energy and costs, and make progress in energy, waste, water and transportation improvements.

			County EnergySmart services.	
14	CE-ET1S3: Provide and develop information for residents and businesses on conservation and rebate programs.	PM	<p>The City has significantly stepped up its promotion of energy conservation and rebate programs, most notably as of May 2016 when the City of Louisville signed a Memorandum of Understanding to participate in Xcel Energy's Partners in Energy offering for two years. Through a facilitated engagement process in partnership with Xcel Energy, the City developed the Louisville Energy Action Plan, as well as the Louisville Energy Stars brand for programs that promote energy efficiency and support the City's Sustainability Action Plan. As an outcome of this plan, the City's goal is to reduce total energy use by 1% annually, which could result in reducing total energy use by 11% over the 2015 baseline by 2027. Conservation and rebate programs that accomplish the City's goals developed in the Louisville Energy Action Plan are advertised under the Louisville Energy Stars logo.</p> <p>The City of Louisville's Energy Stars program developed in partnership with Xcel Energy's Partners in Energy encourages energy efficiency and renewable energy, leverages resources and benefits the economic vitality, environmental health and well-being of the community through the following strategies:</p> <ul style="list-style-type: none"> • Large Business Outreach • Grow the Green Business Program • Increase Residential Participation in Priority Areas • City Showcase - Integrate Energy Efficiency in City Facilities • City Showcase - Share Information <p>Programs are promoted on the website, in newsletters and other outreach materials, as well as through programs hosted at the Library. EnergySmart and PACE services play a key role in the strategy, among others. The newly hired Sustainability Specialist also ensures information about these programs are updated and provided for public use. It should be noted that the Planning Department has expressed a desire to be better equipped to perform improved outreach for conservation and rebate services.</p>	<ul style="list-style-type: none"> • Continue to use the Energy Stars logo, developed in conjunction with Xcel Energy's Partners in Energy program, to promote and develop information for residents and businesses on conservation and rebate programs for energy efficiency and renewable energy.
15	ET1S4: Adopt building codes & policies that promote energy efficiency in new and existing buildings.	PM	This strategy seems to duplicate strategy IT2S3 above.	<ul style="list-style-type: none"> • None. Strategy is covered under strategy IT2S3.

16	ET1S5: Support utility demand-side management programs and renewable power supply initiatives.	PM	<p>Clarification is needed regarding the intent of this strategy, as it addresses two very different issues:</p> <ol style="list-style-type: none"> 1. “Support utility demand-side management programs”: DSM programs typically come directly from the utilities involved in order to reduce the need for further build-out of the utility to the benefit of the utility. These do not reduce energy production, but rather they spread out energy usage (demand) over off-hours so that it doesn’t overload the system. These arrangements are typically between the utility and the consumer. It is unclear how the City would/should play a role in this. 2. “[Support] renewable power supply initiatives”: First, by “power supply,” it is assumed this is referring to the “energy source” (i.e. solar, wind). Second, it is unclear what is meant by “support.” Are funds or management being suggested? If what is meant is an intention to “promote,” then: The City is currently promoting renewable power source initiatives through the promotion of Boulder County’s EnergySmart. Furthermore, the City is beginning to explore a way to support an affordable renewable power sources. 	<ul style="list-style-type: none"> • None. This strategy appears to be covered under ET1S3.
17	ET1S6: Promote low-interest financing for residents and businesses to complete energy efficiency upgrades & install renewable energy.	SM	<p>The City is currently promoting EnergySmart’s low interest energy loan program in conjunction with Elevations Credit Union on the website and through outreach materials, such as a planned water bill insert for September 2017. This will also be promoted through a session focused on energy savings to be held at the Library.</p> <p>This strategy is fully dependent on EnergySmart offerings, as the City has no current capacity or mechanism to develop such a program with a lender.</p>	<ul style="list-style-type: none"> • None. Strategy is covered under ET1S1.

Water

Internal Target 1: Reduce water usage and improve efficiency of water use with City buildings				
18	W-IT1S1: Benchmark all City buildings’ indoor water use.	SM	<p>The Finance department has provided the Public Works Department indoor water use information for all City buildings for the past three years. Public Works regularly monitors usage.</p>	<ul style="list-style-type: none"> • Public Works and the City Manager’s Office should discuss what it would like to do with the water usage information provided

			A further step could be to transform the information into a dashboard and provide it to the public via the website, if desired.	(e.g. for public or internal usage), as well as how to continue benchmarking on an ongoing basis.
19	W-IT1S2: Replace or retrofit City building plumbing fixtures to meet or exceed current code requirements	PM	Over the past few years, the Public Works Department has worked hard to replace or retrofit City plumbing fixtures. For example, aerator devices have been installed on City building faucets to reduce water usage and many toilets already are 1.6 gallons. Recently, several urinals at the library were replaced for 1/8 gallon flushes. It should be noted that there are still replacements to be made, but this is ongoing, as is appropriate, needed, and within budget. According to the Facilities Manager, an audit would be required and could be reasonable accomplished to determine a more thorough replacement schedule.	<ul style="list-style-type: none"> Continue to replace or retrofit City building plumbing fixtures to meet or exceed current code, as appropriate. Perform an audit on City plumbing fixtures to determine what remains to be done and create an action plan.
20	W-IT1S3: Achieve 80% of all the new construction water efficiency points in the USGBC LEED for water use reduction and rain water management, applicable to specific type of building.	PM	<p>The new Recreation Center is being designed to earn between 60-79 points (gold standard) under the Water Use Reduction & Rain Water Management section of the USGBC LEED rating system. Due to cost, however, the City will not seek formal certification. The efficiency measures are expected to yield significant water usage savings over the life of the building, which would affect water production costs by the City.</p> <p>See CE-IT2S4 about potentially creating a City policy to address environmental standards.</p>	<ul style="list-style-type: none"> Continue to seek 60-79 points under the Indoor Water Use and Rainwater Management sections of the USGBC LEED rating system (or equivalent system) for new buildings, including the new Recreation Center, on a case-by-case basis.
21	W-IT1S4: Manage and upgrade infrastructure to reduce leaks in the system.	SM	The Public Works Department habitually checks for leaks in the metering system, performing an audit annually on a different third of the system. This year, they will be performing a regularly scheduled complete audit. Known leaks are addressed within 24 hours. Leaks are costly and usually noticeable, often causing larger infrastructure problems (i.e. sinkholes in pavement). There are currently no known leaks in the system.	<ul style="list-style-type: none"> Continue to manage and upgrade infrastructure to reduce leaks in the water metering system, including the performance of scheduled annual audits.
Internal Target 2: Improve efficiency of water use on Open Space and City landscaping				
22	W-IT2S1: Create a community-wide green infrastructure plan to capture and infiltrate rain water where it falls, thus reducing	NM	This requires a planning process as part of a Stormwater Master Plan. According to one member of the LSAB, this strategy is “complicated due to ‘rain barrel’ laws in Colorado. The goal with this strategy would be to promote less stormwater runoff directly from pavement to the streams (thus reducing pollution in stormwater) and to have areas designed with plant	<ul style="list-style-type: none"> Plans for a Stormwater Master Plan should be further developed. The desire to create a community-wide green infrastructure plan to capture and infiltrate rain water

	storm water runoff.		selection and drainage to allow for reduced irrigation. Basically, rather than treating stormwater as a nuisance that needs to be directed away from City properties or new developments, some water would be put to use or allowed to infiltrate.” Interviews with Public Works reveal that a Stormwater Master Plan is on the radar. Unknown funding required at this time. \$300K minimum / could potentially be largely funded (75%) through Community Development Block Grants (CDBG).	should be bookmarked for discussion for incorporation.
23	W-IT2S2: Encourage quality drought resistant landscaping through the development review process.	PM	<p>According to the Parks and Recreation Department, the City utilizes xeric and low water plant material where feasible and/or desired. There is a horticulturalist on staff and additional support staff that keep up the plant material around town. This horticulturist is consulted on new-build projects as part of the process.</p> <p>In addition, the Planning and Building Department states that it plans to include language encouraging quality drought resistant landscaping in the new design guidelines.</p>	<ul style="list-style-type: none"> Continue to watch for opportunities to implement drought resistant landscape. The Planning and Building Department should include language encouraging quality drought resistant landscaping in the new design guidelines.
Internal Target 3: Minimize use of treated water for non-potable functions				
24	W-IT3S1: Use non-drinking water systems to meet residential, industrial, and agricultural needs when feasible.	PM	The City uses the raw water it can through water rights, as well as re-use water, to irrigate the golf course, the sports complex, Community Park, etc. This is because these locations lie along current pipelines designated for reuse water. There has been discussion and some planning for expanding the use of re-use water system to other areas such as Heritage Park and Miners Park but this would involve a large infrastructure build-out.	<ul style="list-style-type: none"> Continue to watch for opportunities to use non-potable water to meet needs when feasible.
Internal Target 4: Improve and maintain water quality				
25	W-IT4S1: Continue to update equipment and procedure manuals related to water use, wastewater and storm water treatment and incorporate methods to promote sustainability & limit environmental impacts.	SM	The Wastewater treatment plant has been fully replaced and procedures streamlined. Updating equipment and procedures in general is an ongoing process in response to noted inefficiencies, as audits are regularly performed.	<ul style="list-style-type: none"> Continue to update equipment and procedures to promote sustainability & limit environmental impacts.
26	W-IT4S2: Aim to have Coal Creek removed from State’s	NM	It is believed that most of the pollution in the creek is caused from agricultural/raw water runoff. The desire and plan to remove Coal Creek from	<ul style="list-style-type: none"> Add the desire and plan to remove Coal Creek from the list of polluted

	list of impaired or polluted waters.		the State's list of impaired or polluted waters should therefore be included in a Stormwater Master Plan.	waters to the future Stormwater Master Plan.
	External Target 1: Expand water conservation education for City residents and businesses			
27	W-ET1S1: Conduct a gap analysis of the water efficiency tools, resources and incentives for residents and businesses.	NM	While a number of resources exist on the City's website, a gap analysis could be developed to better identify gaps to help inform outreach initiatives.	<ul style="list-style-type: none"> Conduct a gap analysis for community resources for water efficiency tools, to be maintained annually to identify gaps and inform outreach initiatives.
28	W-ET1S2: Promote and continue to use local water quality programs including: Keep it Clean; Boulder Area Sustainability Information Network (BASIN); PACE; Center for ReSource Conservation; Slow the Flow; and EnergySmart.	SM	The City and LSAB have worked together to ensure that relevant programs that promote water conservation and water quality are promoted via the City's website. Water bill inserts are another great method of outreach to the community and should continue to be used to offer resources to water customers.	<ul style="list-style-type: none"> Continue to promote local water conservation and water quality programs to Louisville residents and businesses on the City's website, via community alerts, through the City's water bill inserts and any other appropriate channel.
29	W-ET1S3: Develop, market to the community, and update Louisville specific plans that address water conservation and quality.	PM	A community outreach session is being planned to address Louisville specific plans that address water conservation and quality. This session is scheduled for November 29, 2017.	<ul style="list-style-type: none"> Host a community outreach session to address Louisville specific plans that address water conservation and quality.
Transportation				
	Internal Target 1: Develop balanced system that serves the entire City.			
30	T-IT1S1: Adopt Transportation Master Plan that identifies alternative means so citizens of all ages can safely and comfortably walk or ride a bike.	NM	A meeting was held in July 2017 to determine the timeframe and feasibility of a Transportation Master Plan. It was determined that it should ideally begin in early 2018. Funding is needed.	<ul style="list-style-type: none"> Create a Transportation Master Plan to define and analyze transportation priorities. Ensure that it includes the identification of alternative modes of transportation so citizens of all

				ages can safely and comfortably walk or ride a bike.
31	T-IT1S2: Invest in bicycle, pedestrian and transit options, which provide safe, pleasant non-vehicle means of accessing schools, commercial areas, recreational facilities and municipal locations.	PM	<p>Many walking and cycling routes are currently in place (32 miles of cycling paths within City boundaries), with planned improvements. In addition:</p> <ul style="list-style-type: none"> • There are two new underpass projects planned or in progress, with one nearing completion in the Fall of 2017. • A bike cage is being installed at the Highway 36 overpass. • The City Manager's Office is beginning to discuss new routes with RTD, and there is a future bus service being considered from the CTC to destination points within the area. • Public Works has indicated a willingness to develop a map for residents showing all non-vehicle access points. • The Police Department has two bikes to use internally. • Bike Share (Zagster) received funding in May 2017. It will need sponsors, but it should be up and running in 6-12 months. • A preliminary First and Final Mile study has been initiated. <p>The Transportation Master Plan would be extremely useful in making a more thorough study of outstanding needs, desires and feasibility of transportation priorities.</p>	<ul style="list-style-type: none"> • Determine what the City could do, if anything, to help Commuting Solutions develop sponsors for Bike Share.
Internal Target 2: Reduce SOV and GHG emissions and cost impact for City staff				
32	T-IT2S1: Offer incentives to City staff such as: bus / carpool / vanpool subsidies, Bike-to-Work incentives, bike parking and shower facilities.	PM	<p>Currently, there is bike parking at the City Hall.</p> <p>In addition, one shower exists in City Hall, with more at the Recreational Center, but not in other facilities. Interviews with City Hall staff who utilize the CH shower, however, state that it is not "welcoming or inviting" as the room shares a space with paint supplies. A study would be required as to whether these would be used enough to justify cost of installment.</p> <p>Preliminary conversations with Human Resources staff indicate it may be possible to add bike-to-work in the Employee Wellness program. To implement this, it will be important to take into account staff members who live in areas where alternative modes of transportation are not reasonable, and to be inclusive of people with differing mobilities. Therefore, this would need to be one of multiple alternatives eligible for incentives.</p>	<ul style="list-style-type: none"> • Explore whether the Human Resources Department could add bike-to-work as an incentive in the Employee Wellness program and implement, if possible. • Determine if any City facilities require further bike racks. • Make a plan regarding upgrades or installation of shower facilities for staff. • Continue to investigate ways for the City to provide or upgrade relevant or feasible transportation benefits.

			<p>Other incentives might include the provision of an EcoPass to employees. Unfortunately, according to Commuting Solutions, this would require the provision to all employees equitably, and not just to those who say they would use the pass. It may be possible, however, for staff to decline the offer of an EcoPass, similar to how staff may decline a Recreation Pass. With 180 employees, this could be expected to be a significant benefit cost. This would, however, be a significant step toward setting an example for the Louisville community. Commuting Solutions is currently exploring this cost further so the City can make an informed decision. It should be noted that this service has been offered by the City in the past but was discontinued due to low usage.</p> <p>Louisville will support RTD's Ride the Bus campaign on September 28, 2017 by manning the station at the Highway 36 overpass and through community outreach for the event. In addition, Boulder County has provided a grant to preload 6,000 new MyRide pre-loaded bus passes to increase riders on the bus and to reduce single passenger vehicles on the road. Sign-up events were in July/August 2017 at the Library.</p>	
33	T-IT2S2: Develop transportation solutions with neighboring communities to establish efficient connections in regional transit.	PM	<p>Ultimately, this may be more thoroughly investigated through the development of the Transportation Master Plan, but there are several recent and current projects that address this strategy:</p> <ul style="list-style-type: none"> • An E-bike ordinance was recently passed, allowing e-bikes on Louisville bike paths. E-bikes help riders attain farther distances with less effort, both within and between communities. • The Louisville Call-n-Ride program (RTD) allows residents to call for a ride between communities within Louisville. • The RTD system allows for travel between communities. (The City Manager's Office is beginning to discuss a new route serving CTC with RTD.) • RTD initiated a Ride the Bus campaign and Boulder County has provided a grant to advertise MyRide pre-loaded bus passes, both of which Louisville supported through staff, outreach, venue and funds. • A new bike shelter/cage is being installed on the Hwy 36 overpass to improve non-vehicle access to the bus stop and encourage transportation between communities. • A potential new bus service is being considered to serve the CTC. 	<ul style="list-style-type: none"> • Continue to discuss with RTD routes between neighboring municipalities and Louisville to improve regional and local transit service. • Develop alternative transportation solutions between communities into the future Transportation Master Plan. • Continue to explore an RTD bus route serving the CTC/Major employment center. • Continue to work with Commuting Solutions to move the FastTracks project forward, as well as other multi-modal projects.

			<ul style="list-style-type: none"> • Bike Share (Zagster) received funding in May 2017. It will need sponsors, but it should be up and running in 6-12 months. • The Call-N-Ride now serves the Louisville Recreation Center from the Superior side. • In coordination with DRCOG, the City of Louisville and Town of Superior coordinated corridor timing improvements to reduce vehicle delay/idling/emissions. • In coordination with Superior, Louisville led the initiative to build the DDI, which saved more delay/idling/emissions on the US 36 BRT route than the previous US 36 RTD Queue Jump project was achieving. • In addition, Via offers affordable transportation services between communities. <p>Additionally, FastTracks, the passenger train system that is currently operating for a short distance in Denver, will eventually be built out to Louisville and beyond (Longmont). It is not scheduled to be implemented in Louisville, however, until 2040. This is an endeavor the City should keep on its radar and attempt to move through the legislative process more quickly on a state and federal level.</p>	
	External Target 1: Support telecommunication efforts			
34	T-ET1S1: Support upgrading of communication infrastructure that would improve internet speeds.	PM	<p>The Library reports that they have recently upgraded their wifi network (in 2017) by increasing internal access points. It should be noted that this is an important community outreach in that it allows people of all vulnerabilities to access the internet for free, thus leveling the playing field for education, telecommuting opportunities, and even learning through play. It also provides a safe place for teenagers to be who may not otherwise have any place to go, or who just want to do what any teenager does, but can't due to lack of home access.</p> <p>Currently, the Louisville City Council has approved putting City broadband on the November 2017 ballot. This would potentially allow the City to procure broadband services or partner in a way that would allow the City to upgrade/streamline its municipal communication capacity. This would primarily be for internal use, but may have some opportunities to provide broadband to the public in public buildings.</p>	<ul style="list-style-type: none"> • If City Broadband is approved by vote, then move forward with streamlining and improving City facilities' broadband capacity where relevant. • Work to develop a more formal telecommuting policy for City employees.

			The City Hall also currently provides free wifi to the public it serves.	
	External Target 2: Reduce SOV and GHG emissions			
35	T-ET2S1: Explore programs to fund and implement RTD EcoPass for City residents and employees.	PM	According to the Deputy City Manager, this has been utilized in the past and was discontinued due to lack of participation. Funding needs are high and do not readily exist. See above for further information. More info?	<ul style="list-style-type: none"> None. Addressed above (but it shouldn't be. Switcharoo).
36	T-ET2S2: Develop bike maps and way finding signage	PM	Public Works has indicated a willingness to develop a map for residents showing all non-vehicle access points. They are currently developing an ADA parking map. In addition, the Planning department has indicated that a plan to put Zagster bike stations between communities is in progress, but not yet funded. More research needs to be conducted regarding "First and Final Mile" connections, which will be considered as part of the Transportation Master Plan. Boulder County released a 2017 Bike Map this year with detailed routes all over the county available for public use. Commuting Solutions, also, has a pocket map showing bike access points across four communities, including Louisville.	<ul style="list-style-type: none"> Develop a Louisville-specific map for residents showing all non-vehicle access points Explore what the City can/should do to expand First and Final Mile program through implementation of the Transportation Master Plan.
37	T-ET2S3: Incentivize businesses to include electric vehicle charging stations.	PM	<p>The Planning Department reported that businesses could be incentivized to build out for or provide electric vehicles supply equipment (EVSE) as potential "waiver" currency when negotiating for particular waivers (i.e. offsets). The addition of EVSE with new build projects could be added in a guideline list in the current PUD project.</p> <p>Additionally, Partners for a Clean Environment (PACE) currently can help businesses with advice and/or rebate options for implementing EVSE stations, but the City does not currently advertise this particular service from PACE on the website. Grants exist through the Regional Air Quality Council (RAQC) which help not-for-profit entities, such as local governments, school districts and state agencies. Apartment/condominium complexes and businesses that own multi-vehicle parking facilities for fleet, public or guest / visitor are also eligible for EVSE funding. Local companies also exist that can help companies navigate rebates and the logistics of installing an EVSE.</p> <p>It should also be noted that the Mayor's decision to join to Climate Mayors and to sign onto the letter to the Governor was a powerful statement of</p>	<ul style="list-style-type: none"> Add EVSE (electric charge stations) build-out into a guideline list in the current PUD project Provide links on the website for information about rebates, grants, and services that would help incentivize businesses to install EVSE (electric charge stations). Continue to support the Climate Mayors & States initiatives as a push for more funding for EVSE infrastructure within the municipality of Louisville, as well as between communities across the state and nation.

			support from Louisville for building out EVSE infrastructure in Colorado, since this is one of the Governor’s commitments as a “Climate State.” This grassroots push from Mayors and the Governor is expected to have an effect on funding opportunities for municipalities from the State.	<ul style="list-style-type: none"> Consider adding EVSE (electric charge stations) build-out into a guideline list in the current PUD project.
38	T-ET2S4: Promote and use PACE sustainability services for businesses, and collaborate on a green business recognition program.	SM	<p>Over the last year, the City has promoted Partners for a Clean Environment (PACE) services via its website and through its Green Business Recognition program, in which PACE plays a key role. Affiliated with Boulder County, PACE also works through other organizations, such as the CTC Building Owners Association and the Louisville Chamber of Commerce, to promote transportation options for Louisville businesses to reduce the number of single occupancy vehicles (SOV) on the road.</p> <p>The City strongly encourages and promotes PACE for its business outreach services, which includes “free expert advisor services, incentives and a certification program to help businesses measure and gain recognition for their successful progress in energy, waste, water and transportation. PACE Partners are businesses committed to supporting a strong economy, implementing environmentally sustainable practices and becoming leaders in our community.”</p>	<ul style="list-style-type: none"> Continue to promote Partners for a Clean Environment (PACE) to help businesses with transportation options with the aim of reducing the number of single occupancy vehicles on Louisville roads and between neighboring communities.
External Target 2: Incorporate smart growth principles and walkable communities into land use				
39	T-ET3S1: Adopt programs to improve ease-of-use for the first and final mile of commuter pathways.	PM	This strategy appears to repeat the intention in T-ET2S2 “Develop bike maps and way finding signage.”	<ul style="list-style-type: none"> None. Strategy addressed in T-ET2S2.
40	T-ET3S2: Improve walkability through crosswalks and safe school routes with BVSD partnerships.	PM	<p>Public Works reports that they work directly with BVSD whenever an issue arises and that there are no current outstanding issues that have been brought to their attention.</p> <p>The Planning and Building Department reports that there is room for improvement and that the city needs to continually work with all stakeholders.</p>	<ul style="list-style-type: none"> Continue to work directly with BVSD whenever an issue arises concerning crosswalks and safe school routes.

Waste

Reduce production and increase landfill diversion				
41	Ws-IT1S1: Expand recycling programs to include hard to recycle materials (e.g. electronics and pharmaceuticals)	NM	<p>The City does not currently host a hard-to-recycle day for residents within Louisville. Funding would be required for this activity, likely between \$3K-\$5K per event. It is possible that this type of event could receive grant funding from the county (Zero Waste Grant / Sustainability Grant). This is not a service that could be added as part of a contract with a residential hauler for door-to-door pick-ups, along with compost, recycling and waste.</p> <p>Currently, residents may take hard-to-recycle materials to the Boulder Center for Hard to Recycle Materials (CHaRM) for a fee. The City also hosts two free branch collection days per month for woody debris only.</p>	<ul style="list-style-type: none"> Work to determine what a Hard-to-Recycle Day for Louisville would cost and explore whether the City wishes to either apply for a grant or has capacity to host one or two events annually.
42	Ws-IT1S2: Install triple bin (recyclable, compostable, trash) waste collection at City facilities and parks as practical	PM	<p>Most City facility buildings have at least one or more collections of triple bin waste bins. Parks do not have any options besides trash collection for the landfill. The Recreation Center's system is okay, but is undergoing renovation, so will need additional bins. The Police Department did have three bins in the break room area, but the compost bin has disappeared at the time of this report. Restrooms in facilities may or may not compost. There is one public outdoor recycle bin in front of the City Hall.</p> <p>Louisville has 27 parks, of which none have triple bin systems installed. All waste accumulated in City parks is collected by staff and goes directly to the landfill.</p> <p>In order to implement a 3-bin system at all facilities and parks, an analysis would need to be performed to determine suitable locations and logistics (i.e. cross-contamination and staffing challenges). For parks, for example, it may be more useful to include one or more recycling bins, and not include compost bins, due to the high rate of cross-contamination and failure at public parks for this type of service (If composting is contaminated by non-compostable materials, haulers will add it all to the waste stream so as not to contaminate the compost cycle.) Education through staff training is highly</p>	<ul style="list-style-type: none"> An inventory should be taken of all parks and facilities to determine which facilities need bins for diversion (e.g. recycling or composting). An analysis of cost should be made, as well as expected challenges and recommendations. Apply for a Boulder County Zero Waste Grant at the end of 2017 (and going forward) for possible funding of new bins for parks or facilities OR for funding of a composting service for dog waste at the City's dog parks.

			<p>recommended to help ensure maximum participation and better success for the triple bins currently being used in City facilities.</p> <p>An interview with the Parks and Recreation Department revealed that one welcome way to divert a significant amount compostable materials from the park's waste stream is to explore a dog waste composting service at the City's dog park and/or open space. The Boulder County Sustainability Office has indicated that this would be within scope for a Zero Waste Grant.</p> <p>In addition, the City should make every effort to not inadvertently cause residents to use single-use items. For example, a resident recently reported to the LSAB that a water fountain in a city park was not functional. The result of that was that next to the fountain was a waste can (landfill destined) overflowing with plastic water bottles.</p>	
43	Ws-IT1S3: Establish City purchasing guidelines that consider impact from product lifecycles.	PM	<p>A draft City Green Purchasing Guideline is in process and should be ready for council review in late 2017.</p> <p>Establishing a Green Purchasing Policy would be beneficial both financially and environmentally to City operations. Currently, Louisville City departments are free to order office supplies from their preferred office supplier, usually Source or Staples. Currently, much of the white copy and printer paper purchased by the City is 30% recycled content, but not all, depending on department. Many other office supplies purchases are not eco-friendly, even when an alternative exists at a competitive price.</p> <p>A recent analysis of office supplies purchased by the city from the two primary office supply companies reveal that done strategically, money could be saved through the replacement of non-recycled content products with recycled content products. This will be discussed more thoroughly when the policy is presented to council.</p> <p>Regardless, a more fundamental campaign is needed beyond the replacement of supplies to their more sustainable counterparts to actually reduce the use of paper. This would include a staff-wide cultural shift to utilize digital tools as much as possible, instead of paper. Examples of policies to encourage this shift could include the development of guidelines to not print onto paper items that may be read digitally and for staff to bring laptops</p>	<ul style="list-style-type: none"> Consider centralizing all purchases through one vendor to streamline eco-friendly product selection and to utilize competitive pricing through the setting up of contract items. If centralizing through one vendor is not desirable or possible, then continue current relationships, applying the Green Purchasing Policy to purchase decisions. Adopt a Green Purchasing Policy that requires eco-friendly products be purchased when there is a choice and the selection is not cost-prohibitive. This Purchasing Policy would continue to favor local purchases over eco-friendly purchases. Develop a plan to shift City staff culture toward digital document

			<p>or tablets to meetings, rather than to expect printouts, or to always use double sided printing when printing is necessary.</p> <p>Interviews with the various departments suggest that certain measures are in progress toward a digital shift. The Finance and IT Departments are developing a new ERP in order to prevent the need to print certain items that are needed by the Finance Department, which are then turned around and rescanned back into the system. The IT Department has also decommissioned more than half of the large copiers the City had in the last 4 years, and replaced existing copiers with far more efficient, energy smart versions. The Planning and Building Department, also, has begun to make a shift toward digital documents through the implementation of a new software review system. Even so, the IT Department says their new ERP will not solve all needs to print and return for scanning and the Planning and Building Department has expressed a strong desire to digitize far beyond what is currently in place. The Human Resources department, as well, has expressed a desire to provide tablets for interviewers during the interview process, rather than the provision of large paper packets, but do not currently have available tablets for this purpose.</p> <p>The systemic reduction of paper use across departments would very likely reduce copier/printer equipment needs significantly, providing further savings and offsets for any additional purchase of devices such as tablets or digital meeting aids, such as Smart TVs.</p>	usage, rather than print.
	External - Develop educational programs to reduce business & residential waste			
44	Ws-ET1S1: Partner with local retailers to reduce use of non-recyclable, non-compostable, and non-reusable containers.	PM	<p>The City currently strongly encourages that all food containers used at Street Fair and City sponsored events by participating retailers are compostable.</p> <p>One significant way to address this strategy would be a potential partnership between the City and grocers and/or retailers to address plastic bag usage. The City may certainly consider a campaign to recommend or encourage grocers and/or retailers to adopt a “bring your own bag” system, or to provide only paper bags for customers, which are both biodegradable and much more easily recyclable. For greater success, though, the City may want to evaluate an ordinance mandating use of a “bag fee” by grocers and/or</p>	<ul style="list-style-type: none"> Reconsider an ordinance to implement a plastic bag fee at Louisville grocery and/or retail stores. Consider an ordinance to require all Louisville businesses to recycle and compost, using the hauler of their choice.

			<p>retailers to encourage customers to bring their own bags. These systems have proven highly successful in many cities around the nation to reduce landfill waste generated by retail bags, with some areas in the US banning plastic bags outright. States and areas in the United States banning the use of plastic bags in retail stores include coastal North Carolina, much of San Francisco, and Portland. While Louisville's neighbor, the City of Boulder, has not banned use of plastic bags by retailers, they have created a bag fee mandate in grocery stores only. The program has become well accepted, with shoppers sometimes even encouraged to donate their bag fee to a charity when not used. Reports show that bag usage in grocery stores dropped by 69%. Retailers like the fee because it allows them to capture revenue for bag usage. For example, the way the bag fee works in Boulder is that all grocery stores are required to charge 10 cents for every plastic or paper bag used at the checkout. The stores retain four cents of the fee and the remaining six cents is sent to the City of Boulder to address the impacts of disposable bags in the community.</p> <p>In addition, the City of Louisville currently does not require retailers – or any businesses – to recycle and compost, despite a requirement for residents to do so. To require businesses to recycle and compost would require an ordinance. This could potentially be done while still empowering the business to choose their own hauler. In the past, the City Council has not agreed to make this mandatory for businesses. It is possible that this could be reevaluated in the future.</p> <p>Furthermore, the City will be renegotiating its waste contract and issuing an RFP for renewal of the waste contract in 2019. These additional topics will not be addressed by this contract, but they would be appropriate to revisit together in mid-to-late 2018.</p>	<ul style="list-style-type: none"> Consider making it a requirement that retailers participating in City Events use compostable food service products.
45	Ws-ET1S2: Increase awareness through City's online sources regarding options for hard to recycle materials.	SM	<p>CHaRM information may be easily found on two of the City's website pages:</p> <ul style="list-style-type: none"> Residents>Sustainability Residents>Sustainability>Recycling Options and Information 	<ul style="list-style-type: none"> Continue to make CHaRM information available via the City website and watch for opportunities to include information via other outreach methods.
46	Ws-ET1S3: Encourage	PM	The City of Louisville currently does not require Home Owner's Associations	<ul style="list-style-type: none"> Consider an ordinance to require

	Homeowner Associations (HOAs) to offer the same level of waste services (e.g. compost) as the community.		<p>(HOAs) to recycle and compost, despite a requirement for its residents to do so. Unlike other residents, HOAs currently offer waste services with their own selected haulers. While not required, Louisville HOAs currently offer recycling services, but not necessarily composting services.</p> <p>To require HOAs to recycle and compost would require an ordinance. This could potentially be done while still empowering the HOA to choose their own hauler. In the past, the City Council has not agreed to make this mandatory for HOAs. It is possible that this could be reevaluated.</p> <p>It is noteworthy that this project would directly and potentially significantly impact GHG emissions recorded in Louisville's annual GHG inventory. Rates of diversion factor into these calculations.</p> <p>The City will be renegotiating its own residential (non-HOA) waste contract and issuing an RFP in late 2018 for renewal in 2019. While the potential requirement of an HOA to provide both composting and recycling is not be addressed by this contract, it might be an appropriate issue to revisit with the City Council in mid-to-late 2018 while similar topics are being raised.</p>	all Louisville HOAs to offer recycling and composting along with their trash service, using the hauler of their choice.
47	Ws-ET1S4: Promote and use PACE sustainability services for businesses, and collaborate on a green business recognition program.	SM	Over the last year, the City has strongly promoted Partners for a Clean Environment (PACE) services via its website and through its Green Business Recognition program, in which PACE plays a key role. Affiliated with Boulder County, PACE also works through other organizations, such as the CTC Building Owners Association and the Louisville Chamber of Commerce, to assist Louisville businesses in considering energy, water, waste, and transportation options. This includes initiatives that reduce energy, water usage, and promote zero waste.	<ul style="list-style-type: none"> Continue to promote Partners for a Clean Environment (PACE) to promote the Green Business Recognition program and to promote zero waste initiatives for businesses.
External - Adopt financial incentives for waste reduction by residents & businesses				
48	Ws-ET2S1: Promote recyclable substitutes/replacements for single use throw-away items, such as plastic bags, foam clamshell food containers, disposable plastic water	PM	This appears to be a repeat in intent of above strategy Ws-ET1S1: "Partner with local retailers to reduce use of landfill waste." See above for comments and recommendations.	<ul style="list-style-type: none"> None.

	bottles, etc.			
49	Ws-ET2S2: Promote markets for Citywide generated recyclables and compost.	PM	This strategy represents the effect of promoting recycling and composting nationally and globally, and not a measurable local strategy in its own right.	<ul style="list-style-type: none"> None.
50	Ws-ET2S3: Encourage use of County Hazardous Materials Management Facility (HMMF) through the no-copay program.	SM	<p>Residents of Louisville may currently take hazardous materials to the Hazardous Materials Management Facility (HMMF) free at drop off. This is a service the City of Louisville supports through utility bill fees (\$30K per year) and is well-utilized with 1,356 drop-offs (46 tons of hazardous waste) by Louisville residents in 2016. Fifty-two tons of hazardous waste were dropped off at the HMMF by Louisville residents in 2015.</p> <p>This service is currently promoted via the City website. This diversion effort factors into a reduction of GHG emissions by the community.</p>	<ul style="list-style-type: none"> Continue to promote residential use of the Boulder County Hazardous Materials Management Facility (HMMF).
External - Divert commercial waste disposal				
51	Ws-ET3S1: Support commercial food composting.	PM	<p>The City currently strongly encourages that all food containers and leftover food used at City sponsored events (including Street Fair) by participating retailers be composted.</p> <p>The City of Louisville currently does not require businesses to compost or recycle, despite a requirement for residents to do so. To require businesses to recycle and compost would require an ordinance. This could potentially be done while still empowering the business to choose their own hauler. In the past, the City Council has not agreed to make this mandatory for businesses. It is possible that this could be reevaluated in the future.</p> <p>Furthermore, the City will be renegotiating its waste contract and issuing an RFP for renewal in 2019. These additional topics will not be addressed by this contract, but they may be appropriate to revisit together in mid-to-late 2018.</p> <p>In addition, the Planning and Building Department has expressed a desire to place a “Room to Recycle” requirement and/or incentives in the new Design Guidelines in order to encourage commercial and multi-family building to plan for recycling access.</p>	<ul style="list-style-type: none"> Consider an ordinance to require that all Louisville businesses compost and recycle, using the hauler of their choice. Consider inclusion of “room for recycling” requirement and/or incentives in the new Design Guidelines.
52	Ws-ET3S2: Provide free	SM	The City does not have capacity to provide free waste audits for businesses.	<ul style="list-style-type: none"> None.

	waste audits for businesses and support zero waste implementation by promoting PACE.		The City of Louisville currently promotes PACE, however, which provides waste audits for businesses. This is already addressed in above strategy Ws-ET1S4.	
Local Food and Agriculture				
	Develop system of City supported community gardens			
53	L-IT1S1: Encourage additional community garden locations throughout Louisville.	NM	<p>City staff does not currently have capacity to lead the effort toward additional gardens. To accomplish the 2015 Community Garden project, LSAB and a group of residents led the charge, enlisting a non-profit group for management.</p> <p>Any new community garden location would be dependent on a variety of issues, most notably access to water. The Parks and Recreation Director has indicated that he would be supportive of additional community garden locations, but that he is not aware of any current requests from the community.</p> <p>If the LSAB or a resident group desires to take charge, however, it seems the City would be open to supporting.</p>	<ul style="list-style-type: none"> Continue to work with local resident led groups to enable community gardens, if desired.
54	Conduct workshops for community gardening	NM	<p>City staff does not currently have capacity to conduct workshops for community gardening. For the City to hold a workshop on community garden, it would be wise to ensure City staff is in place to lead and facilitate the implementation of a garden, which it is currently not in a position to do.</p> <p>The Community Garden does, however, hold a workshop pre-growing season on community gardening. Additionally, the LSAB could potentially facilitate a workshop on community gardening.</p>	<ul style="list-style-type: none"> The LSAB should consider holding an informative workshop on community gardens to gauge interest in additional gardens.
	External - Develop citizen based food sales program			
55	Allow citizens to sell locally produced items such as eggs, honey and produce.	PM	Citizens may currently sell locally produced items at an appropriate venue under Cottage Food Law, with an automatic exemption from the Colorado Retail Food Protection Act. As a private entity, the Farmer's Market in Louisville, for example, allows for these types of sales at their own discretion, requiring only a business license and insurance for sales of raw agricultural products. To do more, the City could adapt zoning regulations that would allow vendors more flexible sales of locally produced goods, such	<ul style="list-style-type: none"> The City should consider adapting zoning regulations to allow vendors more flexible sales of locally produced goods, such as from their own lots.

			as from their own lots.	
56	Provide resource information about local food economy.	SM	There is a list of resource links for the Louisville Farmer's Market, local CSAs, the Community Garden, etc. on the City of Louisville website, on the Sustainability page.	<ul style="list-style-type: none"> Continue to provide resource information about local food on City website.
57	Track community supported agriculture participation.	NM	Community Supported Agriculture (CSA) information may be found on the Louisville website, on the Sustainability page. CSAs are private businesses. The City, therefore, has no mechanism, ability, or jurisdiction to track community participation in any CSA.	<ul style="list-style-type: none"> None

List of Action Recommendations by Priority

Following is a list of recommended actions in order of highest to lowest priority, arranged according to category.

Energy Recommendations by Priority

Energy	Strategy from Sustainability Action Plan	Recommended Action	Stakeholders										Timeframe Estimate			Funding			Importance factor	Total	
			Finance	Public Works	Planning	City Manager	Econ Dev	Library	Police	Parks & Rec	Boards/Comm	Council	<6 months (4 pts)	<18 months (3 pts)	<24 months (2 pts)	24 months + (1 pt)	Ongoing (1 pt)	Within Current budget (5 pts)	Requires additional budget (1 pt)	Likely to find all or partial funds (grants) (3 pts)	Affects GHG Emissions (multiplier)
	Update inventory of greenhouse gas (GHG) production	Complete 2016 GHG inventory: The City Manager’s Office should continue to work with Boulder County, with Public Works’ input, until complete.		x		x						4				1	5			1.2	12
	Set new goals for GHG reductions	Determine community-wide near- and long-term GHG emissions reduction targets, to be approved by City Council.				x					x	x	4			1	5			1.2	12
	Achieve 80% of points for new buildings under LEED Energy & Atmosphere section	Continue to seek 60-79 points (gold standard) under the Energy & Atmosphere section of the USGBC LEED rating system (or equivalent system) for new municipal buildings, including the new Recreation Center, on a case-by-case basis, as appropriate.	x	x	x	x				x		x	4			1	5			1.2	12

	Purchase lowest fuel-use vehicles practical for the City fleet.	Perform analysis on vehicle replacements on a case-by-case basis.		x	x	x				x	x			4				1	5			1.2	12
	Aim for all eligible existing City buildings be benchmarked using the ENERGY STAR performance standards. For ENERGY STAR eligible buildings, a strategy and costs will be developed for energy efficiency improvements.	Develop strategy and costs for energy efficiency improvements for buildings on a case-by-case basis.		x										4				1	5			1.2	12
	Expand solar and renewable energy purchases for City buildings	Explore and compare opportunities to make a plan to transition the remaining 50% of municipal facilities' energy needs to renewable sources.		x			x							4					5			1.2	10.8
	Develop conversion plan for City vehicle fleet to implement new vehicle technologies as they become available for testing and use.	Formalize conversion plan for City vehicles with new technologies. The City Manager's Office should work in tandem with Public Works to meet this objective, with input from other affected departments, as necessary.		x			x							4					5			1.2	10.8
	Implement controls and policies to limit idling of City vehicles.	Create a simple awareness campaign addressing the reduction of idling in City vehicles and determine if an official policy is appropriate. Staff may be educated about vehicle idling by both email and through general staff-wide sustainability training.		x	x	x				x	x			4					5			1.2	10.8
	Aim for all eligible existing City buildings be benchmarked using the ENERGY STAR performance standards. For ENERGY STAR eligible buildings, a strategy and costs	Explore whether the Library, Police Department, and Recreation center might be usefully be measured through Energy Star.		x										4					5			1.2	10.8

	will be developed for energy efficiency improvements.																					
	Aim to achieve 80% of all points within the Energy & Atmosphere section of the USGBC LEED for new City building construction.	If seeking a LEED Gold Standard for new municipal buildings is desired as a policy, the Planning Department should make a recommendation to the City Council for potential formalization through resolution.			x						x	4					5				1.1	9.9
	Promote and use available Energy Smart efficiency services for residents.	Host a community outreach session to address energy rebates available to Louisville residents.				x						4					5				1.1	9.9
	Adopt building codes & policies that promote energy efficiency in new and existing buildings.	Continue to evaluate the adoption of updated building codes to the advancement of energy efficiency in new buildings, every three years as appropriate.			x						x	3					5				1.1	8.8
	Adopt building codes & policies that promote energy efficiency in new and existing buildings.	Guidelines favoring energy efficiency should be included in the new PUD as potential “waiver currency”.			x							3					5				1.1	8.8
	Update inventory of greenhouse gas (GHG) production	Perform a community-wide GHG inventory annually.		x		x						3						1	3		1.2	8.4
	Purchase lowest fuel-use vehicles practical for the City fleet.	Determine with the Police Department whether they would like to purchase an electric vehicle/EVSE in 2018. If yes, then a grant application should be made in Q1 2018.							x		x	3						1	3		1.2	8.4
	Perform energy audits of City facilities	Continue to quantify energy usage data annually by BTU/ft2, performing regular audits of municipal facilities.		x											1		5				1.2	7.2
	Aim for all eligible existing City buildings be benchmarked using the ENERGY STAR	Update the Energy Star data on City Hall and any other relevant buildings on an annual basis. Continue to quantify annually by BTU/ft2.		x											1		5				1.2	7.2

	performance standards. For ENERGY STAR eligible buildings, a strategy and costs will be developed for energy efficiency improvements.																				
	Promote and use available EnergySmart efficiency services	Continue to work closely with Boulder County Sustainability office to promote EnergySmart efficiency services, including affordable energy audits, energy efficiency discounts, solar rebates and low-interest energy loans to Louisville’s residents and businesses through both the City Manager’s Office and Planning and Building.				x									1	5				1.2	7.2
	Promote and use Partners for a Clean Environment (PACE) sustainability services for businesses, and collaborate on a green business recognition program.	Continue to promote Partners for a Clean Environment (PACE) to help businesses reduce energy and costs, and make progress in energy, waste, water and transportation improvements.				x	x				x				1	5				1.2	7.2
	Provide and develop information for residents and businesses on conservation and rebate programs	Continue to use the Energy Stars logo, developed in conjunction with Xcel Energy’s Partners in Energy program, to promote and develop information for residents and businesses on conservation and rebate programs for energy efficiency and renewable energy.				x					x				1	5				1.2	7.2
	Adopt building codes & policies that promote energy efficiency	Continue to evaluate the adoption of updated building codes to the advancement of energy efficiency in new buildings, every three years as appropriate.				x						x				1	5				1.1

Water Recommendations by Priority

	Strategy from Sustainability Action Plan	Recommended Action	Stakeholders										Timeframe Estimate					Funding			Importance factor	Total
			Finance	Public Works	Planning	City Manager	Econ Dev	Library	Police	Parks & Rec	Boards/Comm	Council	<6 months	<18 months	<24 months	24 months +	Ongoing	Within Current budget (5 pts)	Requires additional budget (1 pt)	Likely to find all or partial funds (grants) (3 pts)	Affects GHG emissions (multiplier)	Prioritization Score
Water	Benchmark all City buildings indoor water use	Public Works and the City Manager's Office should discuss what it would like to do with the water usage information provided (e.g. for public or internal usage), as well as how to continue benchmarking on an ongoing basis.	x	x									4					5			1	9
	Achieve 80% of all the new construction water efficiency points in the USGBC LEED for water use reduction and rain water management, applicable to specific type of building.	Continue to seek 60-79 points under the Indoor Water Use and Rainwater Management sections of the USGBC LEED rating system (or equivalent system) for new buildings, including the new Recreation Center, on a case-by-case basis.		x	x					x		x	4				1	5			1.2	12
	Replace or retrofit city building plumbing fixtures to meet or exceed current code	Continue to replace or retrofit City building plumbing fixtures to meet or exceed current code, as appropriate.		x									4				1	5			1.1	11
	Develop, market to the community, and update Louisville specific plans that address water conservation and	Host a community outreach session to address Louisville specific plans that address water conservation and quality.		x		x							4					5			1.2	10.8

[illegible]

Transportation Recommendations by Priority

	Strategy from Sustainability Action Plan	Recommended Action	Stakeholders										Timeframe Estimate					Funding			Importance factor	Total
			Finance	Public Works	Planning	City Manager	Econ Dev	Library	Police	Parks & Rec	Boards/Comm	Council	<6 months (4 pts)	<18 months (3 pts)	<24 months (2 pts)	24 months + (1 pt)	Ongoing (1 pt)	Within Current budget (5 pts)	Requires additional budget (1 pt)	Likely to incur no or partial funds (grants) (3 pts)	Affects GHG Emissions (multiplier)	Prioritization Score
Transportation	Incentivize businesses to include electric vehicle charging	Consider adding EVSE (electric charge stations) build-out into a guideline list in the current PUD project.			x	x	x						4				1	5			1.2	12
	Promote and use PACE sustainability services for businesses, and collaborate on a green business recognition program.	Continue to promote Partners for a Clean Environment (PACE) to help businesses with transportation options with the aim of reducing the number of single occupancy vehicles on Louisville roads and between neighboring communities.																				
						x	x				x		4				1	5			1.2	12
	Invest in bicycle, pedestrian and transit options which provide safe, pleasant non-vehicle means of accessing schools, commercial areas,	Develop a City map for residents displaying all non-vehicle access points and to be made available online.		x	x	x						x	4					5			1.2	10.8

[illegible]

	Incentivize businesses to include electric vehicle charging	Provide links on the website for information about rebates, grants, and services that would help incentivize businesses to install EVSE (electric charge stations).				x								4					5			1.1	9.9
	Adopt transportation master plan that identifies alternative means so citizens of all ages can safely and comfortably walk or ride a bike.	Create a Transportation Master Plan. Ensure that it includes the identification of alternative modes of transportation so citizens of all ages can safely and comfortably walk or ride a bike.																					
			x	x	x								x	3					5			1.2	9.6
	Develop transportation solutions with neighboring communities	Continue to explore an RTD bus route serving the CTC/Major employment center.																					
					x									3					5			1.2	9.6
	Invest in bicycle, pedestrian and transit options which provide safe, pleasant non-vehicle means of accessing schools, commercial areas, recreational facilities and municipal locations.	Add the desire to invest in non-vehicle transportation modes into the future Transportation Master Plan.																					
			x	x									x	3					5			1.1	8.8
	Develop bike maps and way finding signage	Explore what the City can/should do to expand First and Final Mile program through implementation of the Transportation Master Plan.			x	x	x							3					5			1.1	8.8

	Offer incentives to City staff for alternative transportation	Make a plan regarding upgrades or installation of shower facilities for staff.		x		x										3							1	3	1.1	8.4
	Develop transportation solutions with neighboring communities	Develop alternative transportation solutions between communities into the future Transportation Master Plan.		x	x	x									x	3							1	3	1.2	8.4
	Support upgrade of communication infrastructure	If City Broadband is approved by vote, then move forward with streamlining and improving City facilities' broadband capacity where relevant.		x		x									x		2					5			1.2	8.4
	Develop transportation solutions with neighboring communities	Continue to work with Commuting Solutions to move the FastTracks project forward, as well as other multi-modal projects.				x												1				5			1.2	7.2
	Incentivize businesses to include electric vehicle charging	Continue to support the Climate Mayors & States initiatives as a push for more funding for EVSE infrastructure within the municipality of Louisville, as well as between communities across the state and nation.				x									x							5			1.1	6.6
	Improve walkability through crosswalks and safe school routes with BVSD	Continue to work directly with BVSD whenever an issue arises concerning crosswalks and safe school routes.		x	x																	5			1.1	6.6
	Offer incentives to City staff for alternative transportation	Determine if any City facilities require further bike racks and whether a shower facility might be reasonable to implement on site.		x												3							1		1.1	4.4

Waste Recommendations by Priority

Category	Strategy from Sustainability Action Plan	Recommended Action	Stakeholders										Timeframe Estimate					Funding			Importance factor	Total
			Finance	Public Works	Planning	City Manager	Econ Dev	Library	Police	Parks & Rec	Boards/Comm	Council	<6 months	<18 months	<24 months	24 months +	Ongoing	Within Current budget (5 pts)	Requires additional budget (1 pt)	Likely to find all or partial funds (grants) (3 pts)	Affects GHG Emissions (multiplier)	Prioritization Score
	Install triple bin waste collection at City facilities and park as practical	An inventory should be taken of all parks and facilities to determine which facilities need bins for diversion (e.g. recycling or composting). An analysis of cost should be made, as well as expected challenges and recommendations.		x		x				x		x	4				1		1	3	1.2	10.8
	Install triple bin waste collection at City facilities and park as practical	Apply for a Boulder County Zero Waste Grant at the end of 2017 (and going forward) for possible funding of new bins for parks or facilities OR for funding of a composting service for dog waste at the City's dog parks.		x		x				x		x	4				1		1	3	1.2	10.8
	Establish City purchase guidelines that consider impact from product life-cycles.	Consider centralizing all purchases through one vendor to streamline eco-friendly product selection and to utilize competitive pricing through the setting up of contract items. If centralizing through one vendor is not desirable or possible, then continue current relationships, applying the Green Purchasing Policy to purchase decisions.	x			x							4					5			1.2	10.8

	Establish City purchase guidelines that consider impact from product life-cycles.	Adopt a Green Purchasing Policy that requires eco-friendly products be purchased when there is a choice and the selection is not cost-prohibitive. This Purchasing Policy would continue to favor local purchases over eco-friendly purchases.	x			x				x			4					5			1.2	10.8
	Partner with local retailers to reduce use of non-recyclable, non-compostable, and non-reusable containers.	Consider making it a requirement that retailers participating in City Events to use compostable food service products.				x						x	4					5			1.2	10.8
	Support commercial food composting	Consider an ordinance to require that all Louisville businesses compost and recycle, using the hauler of their choice.				x						x	3			1		5			1.2	10.8
	Expand recycling programs to include hard to recycle materials	Work to determine what a Hard-to-Recycle Day for Louisville would cost and explore whether the City wishes to either apply for a grant or has capacity to host one or two events annually.		x		x							3			1			1	3	1.2	9.6
	Partner with local retailers to reduce use of non-recyclable, non-compostable, and non-reusable containers.	Reconsider an ordinance to implement a plastic bag fee at Louisville grocery and/or retail stores.				x	x					x	3					5			1.2	9.6
	Partner with local retailers to reduce use of non-recyclable, non-compostable, and non-reusable containers.	Consider an ordinance to require all Louisville businesses to recycle and compost, using the hauler of their choice.		x		x	x					x	3					5			1.2	9.6
	Encourage HOAs to offer the same level of waste services as the community	Consider an ordinance to require all Louisville HOAs to offer recycling and composting along with their trash service, using the hauler of their choice.				x						x		2				5			1.2	8.4

	Increase awareness through City's online sources regarding options for hard to recycle materials	Continue to make CHaRM information available via the City website and watch for opportunities to include information via other outreach methods.				x										1	5			1.2	7.2
	Promote and use PACE sustainability services and green business recognition	Continue to promote Partners for a Clean Environment (PACE) to promote the Green Business Recognition program and to promote zero waste initiatives for businesses.				x	x									1	5			1.2	7.2
	Encourage use of County HMMF through the no copay program	Continue to promote residential use of the Boulder County Hazardous Materials Management Facility (HMMF).				x										1	5			1.2	7.2
	Establish City purchase guidelines that consider impact from product life-cycles.	Develop a plan to shift City staff culture toward digital document usage, rather than print.	x			x									1			1	3	1.2	6

Local Food and Agriculture Recommendations by Priority

Category	Strategy from Sustainability Action Plan	Recommended Action	Stakeholders										Timeframe Estimate		Funding			Importance factor	Total		
			Finance	Public Works	Planning	City Manager	Econ Dev	Library	Police	Parks & Rec	Boards/Comm	Council	<6 months (4 pts)	<18 months (3 pts)	<24 months (2 pts)	24 months + (1 pt)	Ongoing (1 pt)	Within Current budget (5 pts)	Requires additional budget (1 pt)	Likely to find all or partial funds (grants) (3 pts)	Affects GHG Emissions (multiplier)
Local Food & Agriculture	Conduct workshops for community gardening.	The LSAB should consider holding an informative workshop on community gardens to gauge interest in additional gardens.								x		x					5			1.1	7.7
	Allow citizens to sell locally produced items such as eggs, honey and produce.	The City should consider adapting zoning regulations to allow vendors more flexible sales of locally produced goods, such as from their own lots.			x	x					x			2			5			1.1	7.7
	Provide resource information about local food economy.	Continue to provide resource information about local food on City website.	x	x		x				x	x			2			5			1.1	7.7
	Encourage additional community garden locations	Continue to work with local resident led groups to enable community gardens, if desired.		x		x			x							1	5			1.1	6.6

Conclusions

These recommended actions address the fulfillment of the various SAP strategies compiled by LSAB and adopted by City Council in 2016 for the purpose of Louisville's fiscal and environmental sustainability.

As stated above, additional notes have been provided to the LSAB with further explanation for many of the recommendations, as well as a list of recommendations regarding updating some of the strategies.

While the recommendations in this plan span multiple departments and stakeholders, the ability to track and implement the above recommendations will largely depend on a reliable project management system. Currently, there is not a long-term staff position to fill this position.

Further, to keep these strategies relevant and up-to-date, it is recommended that the LSAB review and update the SAP every two years.

With the recommendations listed in this 2-Year Work Plan, the City can decide if they wish to pursue these recommendations, potential grants, as well as a longer-term staff position for tracking and management.